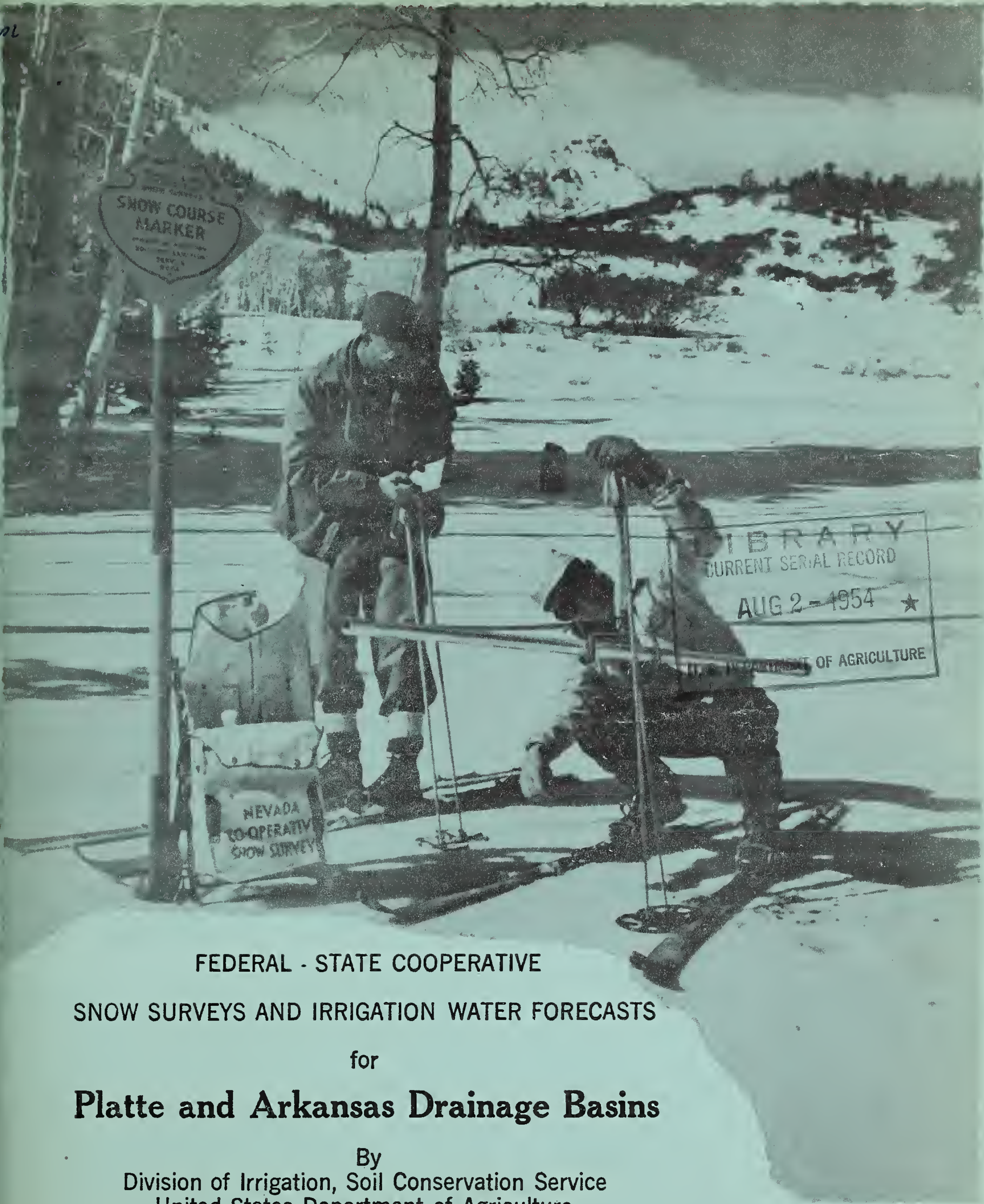

FEDERAL - STATE COOPERATIVE

SNOW SURVEYS AND IRRIGATION WATER FORECASTS

for

Platte and Arkansas Drainage Basins

By
Division of Irrigation, Soil Conservation Service
United States Department of Agriculture
and
Colorado Agricultural Experiment Station

Data included in this report were obtained by the agencies named above in cooperation with the U. S. Forest Service, National Park Service, State Engineers of Colorado, Wyoming and New Mexico and other Federal, State and local organizations.

As of

APR. 1, 1952

FEDERAL-STATE COOPERATIVE
SNOW SURVEYS AND IRRIGATION
WATER SUPPLY FORECASTS

FOR

PLATTE-ARKANSAS BASINS

April 1, 1952

Report Prepared

by

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Division of Irrigation
Soil Conservation Service

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WATER SUPPLY OUTLOOK
PLATTE-ARKANSAS DRAINAGE BASIN
April 1, 1952

As in all areas in the southern Rocky Mountain region the seasonal snow accumulation on the Platte and Arkansas drainages equals or exceeds any previous record since snow surveys were started in 1936. The summer runoff of most of the tributary streams may also be expected to be very high. With above normal precipitation during the remainder of the snow season and during snow melt, 1952 summer runoff may exceed any recent year. Reservoir storage is generally above average and a year ago. Because of heavy snow at valley elevations in late March soil moisture conditions are reported as good over the irrigated areas along the North and South Platte. Precipitation in the Arkansas Valley has been deficient for the winter months. Soil moisture conditions in this area are described as poor.

CHEYENNE RIVER

Snow cover in the Black Hills area of South Dakota is the highest for any year since surveys were started in 1944. Soil moisture conditions are described as good at higher elevations on the Belle Fourche irrigated districts. Elsewhere in western South Dakota soil moisture conditions are described as fair. Stream flow and reservoir storage is expected to be adequate for irrigation purposes.

NORTH PLATTE RIVER

Snow water content on the Sweetwater River watershed in the Washakie Mountains southwest of Lander is well above normal. The snow-melt season runoff of this stream is expected to be over average. There is no snow at valley elevations in the Lander district. The snow water content measured on practically all courses on the North Platte is at a record high for this date. Along the Continental Divide range to the west of the river the seasonal snow accumulation is definitely the highest of snow survey record. The snow-melt season runoff into Seminoe reservoir will probably exceed any year in the past ten years. It is very probable that the North Platte reservoir system will spill this year since the difference in current storage and capacity is about one-half of the expected April-September discharge of the North Platte at Saratoga, Wyoming. Storage in the four major reservoirs on the North Platte is now about 1,675,000 acre-feet, a little less than for a year ago but much above the past ten year average. Soil moisture conditions are described as good throughout the valley areas of eastern Wyoming and western Nebraska. Stream flow is reported as about average.

On the Laramie River the average snow water content measured on the snow courses as of April 1, 1952 was 150 percent of normal and 20 percent above April 1, 1951. Snow in the Laramie Peaks area increased sharply during March and is now probably above normal although the record is short. Soil moisture conditions are reported as good in the Wheatland Irrigated District.

SOUTH PLATTE RIVER

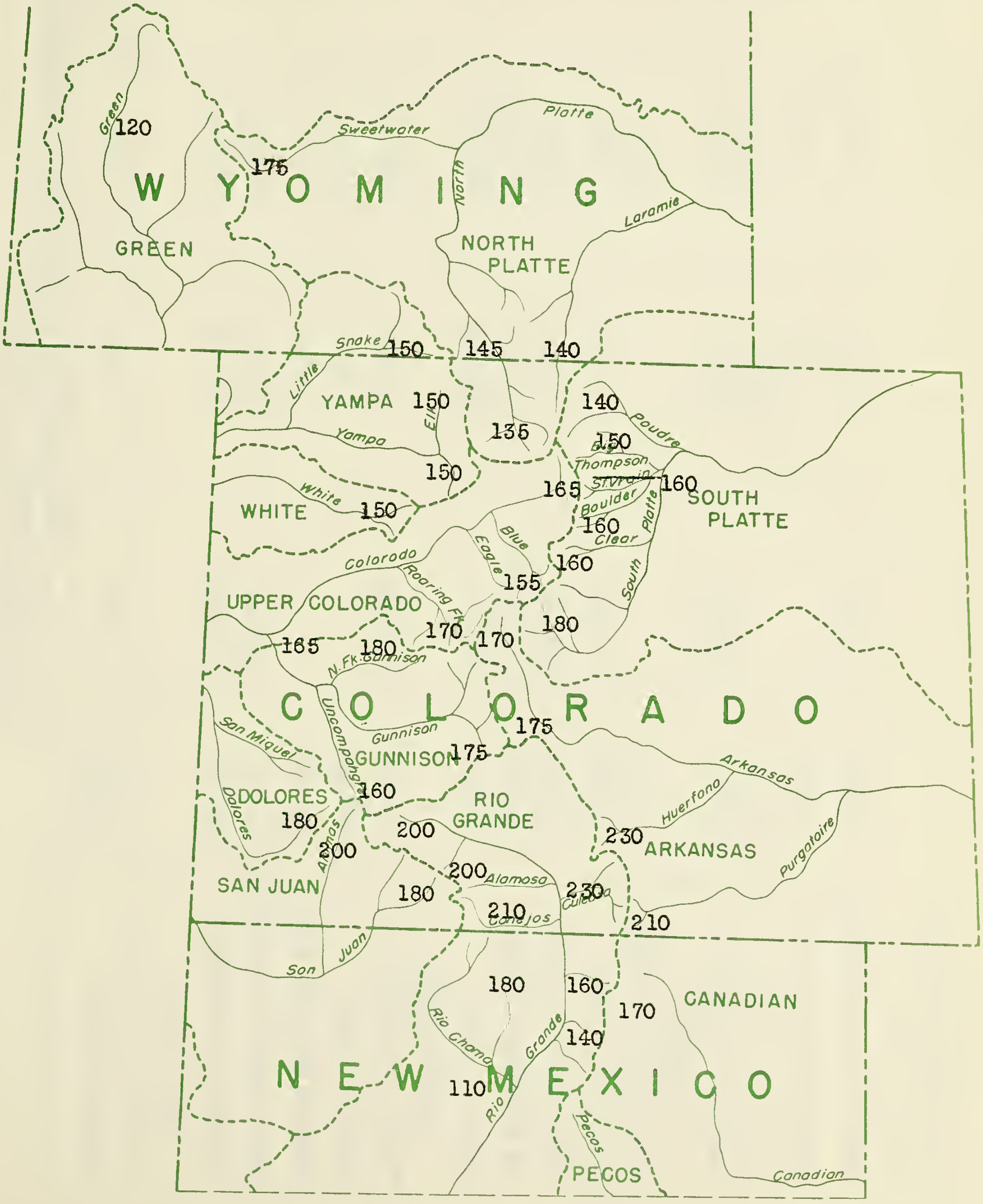
The irrigation water supply outlook for the South Platte and its tributaries is well above normal. Snow cover in mountain areas is little higher than for this date in 1951. Snow melt season runoff of the South Platte and its tributaries should be well above average and above a year ago. Soil moisture conditions in high mountain areas was much better before snow accumulation started in the fall of 1951 than in 1950. Reservoir storage is above last year and the past ten-year average. In the lower South Platte district the reservoirs are near capacity. Soil moisture conditions in irrigated areas are reported as good, partially due to heavy snow which occurred in late March at valley and plains elevations. Stream flow is about normal near the mountains and above normal at Fort Morgan and further downstream.

ARKANSAS RIVER

Seasonal snow accumulation on the Arkansas River drainage is very high both on the main stem and on the southern tributaries in Colorado. The snow water content on all of the higher elevation courses is well in excess of any previous record. Summer stream flow on the southern tributaries will not be as high as indicated by snow water contents because of the drouth of the past two years and the fact that snow does not extend to the lower mountain elevations. Reservoir storage in this basin is generally below the past ten year average but a little above April 1, 1951. An exception is the Two Buttes reservoir in Southwestern Colorado where the storage is near three times normal but slightly less than for a year ago. Because of deficient precipitation during the winter months soil moisture conditions in the irrigated area of the Arkansas Valley are described as poor. Stream flow is currently below normal.

WATER CONTENT OF SNOW ON THE WATERSHEDS OF PLATTE, ARKANSAS, UPPER COLORADO AND RIO GRANDE BASINS BASED ON SNOW SURVEYS MADE APPROXIMATELY FIRST DAY OF MONTH

In Percent of Normal
April 1, 1952



PLATTE-ARKANSAS DRAINAGE BASINS
STREAM FLOW FORECASTS, April 1, 1952

Basin and Stream	April-Sept., Incl., Streamflow, Acre Feet				
	Forecast 1952	1951	1950	1949	10-year Avg. 1941-1950
NORTH PLATTE					
Sweetwater at Alcova	130,000	74,000	162,000	87,000	81,000
North Platte at Saratoga	1,050,000	710,000	678,000	990,000	647,000
Medicine Bow near Hanna	200,000		94,000	161,000	116,000
Laramie at Jelm	140,000		76,000	113,000	94,000
Laramie at Lookout	150,000	117,000	67,000	124,000	84,000
SOUTH PLATTE					
Poudre at Canon	325,000	283,000	186,000	323,000	248,000
Big Thompson at Drake	150,000*	190,000**	104,000	172,000	113,000
Saint Vrain at Lyons	120,000	108,000	59,000	119,000	88,000
Boulder at Orodell	90,000	70,000	39,000	61,000	53,000
Clear Creek at Golden	225,000			185,000	145,000
ARKANSAS					
Arkansas at Salida	550,000	384,000	305,000	460,000	375,000
Arkansas at Pueblo	600,000		249,000	512,000	420,000
Cucharas at La Veta	35,000		2,500	16,000	18,000
Purgatoire at Trinidad	86,000	12,000	18,500	63,000	68,000

*Excluding Diversions
**Including Diversions

STATUS OF RESERVOIR STORAGE PLATTE-ARKANSAS BASIN, April 1, 1952

BASIN AND STREAM	RESERVOIR	USABLE CAPACITY (Thous. A.F.)	THOUSANDS ACRE FEET IN STORAGE About April 1				
			1952	1951	1950	1949	10-year Avg.* 1942-1951
MISSOURI RIVER							
Poudre River	Windsor	18.6	13.4	8.2	11.9	6.7	11.3
" "	Cache La Poudre	9.5	8.7	6.2	8.2	1.6	6.8
" "	Fossil Creek	11.6	10.1	7.1	8.6	1.5	7.5
" "	Terry Lake	8.2	4.8	4.2	4.4	4.1	4.6
" "	Halligan	6.4	1.6	0.0	0.0	1.5	1.1
" "	Chamber's Lake	8.8	2.9	1.9	2.3	1.6	2.3
" "	Cobb Lake	34.3	7.0	4.9	11.3	6.7	6.0
" "	Black Hollow	8.0	3.6	0.7	5.0	4.1	3.7
Big Thompson River	Lake Loveland	14.3	9.1	2.7	5.9	1.5	4.5
" " "	Boyd Lake	44.0	22.6	7.8	26.4	20.5	19.4
" " "	Lone Tree	9.2	8.8	7.8	6.6	4.7	6.2
" " "	Mariano	5.4	5.1	0.1	1.8	1.3	2.2
St. Vrain River	Union	12.7	12.3	3.4	6.1	6.1	7.4
South Platte River	Eleven Mile	81.9	81.9	72.3	81.9	81.9	80.9
" " "	Cheeseman	79.0	31.0	22.6	62.7	51.0	60.8
" " "	Marston	18.9	12.5	14.6	12.3	15.5	15.4
" " "	Barr Lake	32.2	25.7	17.6	24.6	24.7	23.3
" " "	Milton	24.4	18.9	6.7	16.8	14.0	13.5
" " "	Standley	18.5	14.6	8.3	10.7	12.2	12.3
" " "	Marshall	10.3	4.9	1.6	1.8	1.2	2.8
" " "	Antero	33.0	8.6	19.8	21.0	20.0	17.9
" " "	Horse Creek	20.6	14.9	10.9	14.1	12.5	11.5
" " "	Riverside	57.5	58.6	50.8	59.3	52.2	53.7
" " "	Empire	37.7	32.8	28.4	35.2	29.9	31.7
" " "	Jackson Lake	35.4	34.1	33.8	34.0	28.1	33.1
" " "	Prewitt	32.8	25.2	19.8	30.0	27.7	25.8
" " "	Point of Rocks	70.0	69.5	57.6	69.2	36.8	61.7
" " "	Julesburg	28.2	21.5	21.7	21.2	21.2	21.2

*Some for shorter periods

RESERVOIR STORAGE (Cont.)

BASIN AND STREAM	RESERVOIR	USABLE CAPACITY (Thous.A.F.)	THOUSANDS ACRE FEET IN STORAGE About April 1				
			1952	1951	1950	1949	10-year Avg.* 1952-1951
North Platte River	Kingsley	2180.0	1799.0	1820.0	1798.6	1693.3	1234.2
" " "	Sutherland		53.0	56.5	43.8	51.5	
" " "	Minatare	60.8	31.2	28.4	27.2	18.1	23.8
" " "	Alcova	190.0	159.0	169.7	154.8	129.8	89.6
" " "	Seminoe	1025.0	536.0	524.3	573.8	522.4	358.8
" " "	Guernsey	46.0	39.9	44.0	30.0	47.9	42.4
" " "	Pathfinder	1045.5	942.0	963.1	920.0	543.6	521.9
Laramie River	Wheatland	70.4	58.0	45.6	52.3	40.9	42.9
ARKANSAS RIVER							
Arkansas River	Twin Lakes	57.9	21.6	11.2	23.7	23.1	28.4
" "	Sugar Loaf	17.4	19.2	5.2	6.8	7.6	9.0
" "	Clear Creek	11.4	4.5	0.6	6.8	7.4	6.5
" "	Meredith	41.9	0.0	0.0	4.7	21.7	29.5
" "	Horse Creek	26.9	0.0	0.0	6.7	13.1	12.1
" "	Adobe Creek	61.6	8.5	0.0	29.0	26.1	38.1
" "	Cucharas	40.0	6.1	1.9	4.0	8.0	8.0
" "	Two Buttes	40.9	27.4	31.5	17.1	9.3	9.9
" "	John Martin	655.0	46.3	80.8	655.0	158.6	81.6
" "	Great Plains	150.0	22.5	45.8	150.0	66.3	76.1
Purgatoire River	Model	15.0	0.3	0.2	15.0	0.7	3.7
CHEYENNE RIVER							
Cheyenne River	Belle Fourche	198.1	117.7	94.3	93.0	132.1	133.7
	Angosture	160.0	109.0	32.0			
COLORADO-BIG THOMPSON							
Blue River	Green Mt.	146.9	84.7	63.2	68.4	53.8	52.5
Colorado River	Granby	467.5	279.0				
Poudre River	Horsetooth	143.5	72.0				
			0.0				

*Some for shorter periods

PLATTE-ARKANSAS DRAINAGE BASINS

SUMMARY OF APRIL 1 SNOW SURVEYS AND COMPARISON OF DATA WITH THAT OF PREVIOUS YEARS BY WATERSHEDS

WATERSHEDS	Snow Depth 1952 Inches	Snow Water Content in Inches				No. of courses in Average	Snow Density 1952 Percent	1952 Water Content in Percent of	
		1952	1951	1950	15 yr. Avg.*			1951	15 yr. avg.*
CHEYENNE RIVER									
Cheyenne River	38.3	10.2	3.5	7.9	6.6	1	27	290	154
PLATTE RIVER									
Sweetwater	74.2	23.0	14.1	24.0	13.0	2	31	163	177
North Platte River	81.0	28.3	20.6	21.5	19.5	10	35	137	145
Laramie River	58.2	19.2	16.2	12.8	13.4	8	33	119	150
South Platte River**	36.6	10.5	7.7	5.3	5.9	5	29	137	198
Poudre River	54.6	18.6	16.2	11.9	13.2	6	34	115	141
Big Thompson River	43.5	17.1	14.7	8.5	10.1	3	39	115	170
St. Vrain River	43.5	17.1	14.7	13.7	10.1	2	32	117	170
Boulder Creek	52.8	20.0	19.9	11.8	12.8	2	38	100	156
Clear Creek	62.2	21.0	18.1	13.4	13.4	3	34	116	157
ARKANSAS RIVER	54.0	18.1	11.4	8.0	10.2	9	34	158	178
COLORADO-BIG THOMPSON									
Colorado River***	66.4	22.4	18.7	13.3	14.8	6	34	120	152
Willow Creek	59.5	18.7	10.6	15.0	11.7	2	31	176	160
Frazer River	64.1	20.2	15.4	13.0	12.4	3	32	131	163
Blue River	71.8	23.3	21.8	15.8	16.2	4	33	107	144

*Some for shorter periods **Above Denver ***Above Granby

PRECIPITATION DATA*

WATERSHED	STATE	Precipitation October 1 to March 31	Departure from Normal	Precipitation March	Departure from Normal
		Inches	Inches	Inches	Inches
North Platte	Wyoming	7.42	+1.83	1.71	+0.51
South Platte	Colorado	5.50	+0.98	1.13	+0.06
Arkansas	Colorado	5.84	-0.33	1.18	-0.25

*Average selected high elevation stations

PLATTE-ARKANSAS RIVERS SNOW SURVEYS
April 1, 1952

Drainage Basin and Snow Course	Location					Snow Cover Measurements						
	No. and State	Sec.	Twp.	Range	Elev.	Date of Survey	Snow Depth (Inches)	Water Content (Inches)			Past Record	
								1952	1951	1950	Yrs. of Record	Av. Water Content (Inches)
CHEYENNE RIVER												
Upper Spearfish	1 S.Dak.	21	3N	1E	6500	3/28	38.3	10.2	3.5	7.9	8	6.6
SWEETWATER RIVER												
Granier Meadows	29 Wyo.	19	30N	100W	9000	3/25	75.0	22.9	13.3	24.3	15	13.4
South Pass*	47 "	13	30N	101W	9000	3/25	73.4	23.1	14.8	23.7	12	12.7
Larson Creek	57 "	12	30N	103W	9000	2/27	45.4	12.8	13.9	22.8	2	18.3
			Average for drainage				74.2	23.0	14.1	24.0		13.0
NO. PLATTE RIVER												
Cameron Pass	1 Colo.	2	6N	76W	10300	4/1	87.4	28.8	25.0	18.5	16	21.2
Park View	7 "	24	5N	78W	9200	4/3	53.1	16.9	8.7	12.5	16	10.4
Columbine Lodge	8 "	21	5N	82W	9300	3/31	98.8	33.4	29.7	24.3	16	23.1
Willow Cr.Pass*	62 "	1	4N	78W	9500	4/3	65.9	20.5	12.6	17.6	14	13.0
Northgate	136 "	7	11N	79W	8500				5.4	5.9	2	5.7
Bottle Creek	7 Wyo.	24	14N	85W	8200	3/28	61.3	23.2	13.9	18.8	16	14.5
Webber Spring	8 "	27	14N	85W	9000	3/28	80.2	29.8	19.0	24.3	16	19.5
Old Battle	9 "	29	14N	85W	9800	3/28	122.6	47.8	33.3	37.0	16	32.3
N.French Creek	37 "	27	16N	80W	10200	3/30	101.0	37.4	34.2	31.0	14	30.2
N.Barrett Creek	38 "	30	16N	80W	9400	3/30	82.0	27.0	18.8	20.5	16	20.0
Ryan Park	39 "	34	16N	81W	8400	3/31	57.8	17.8	10.3	10.6	16	11.3
Spring Creek	67 "	32	15N	85W	9000	4/1	68.0	25.4	15.2	22.6	2	20.4
Albary	68 "	18	14N	78W	9400	3/30	57.3	18.3	17.8	13.0	3	16.8
La Bonte	69 "	11	27N	74W	8450	4/10	35.3	10.4	6.3	6.5	3	7.8
Boxelder	70 "	31	30N	75W	9000	3/28	40.4	9.7	4.4	5.4	2	4.9
Pearl	71 "	18	12N	82W	8900	4/3	33.4	9.6	5.4	--	1	5.4
			Average for drainage				81.0	28.3	20.0	21.5		19.5

*On adjacent drainage

PLATTE-ARKANSAS RIVERS SNOW SURVEYS
April 1, 1952

Drainage Basin and Snow Course	Location					Snow Cover Measurements						
	No. and State	Sec.	Twp.	Range	Elev.	Date of Survey	Snow Depth (Inches)	Water Content (Inches)			Past Record	
								1952	1951	1950	Yr. of Record	Av. Water Content (Inches)
LARAMIE RIVER												
Roach	88 Colo.	5	10N	77W	9800	3/29	79.4	26.5	20.6	17.9	12	18.9
McIntyre	111 "	35	10N	76W	9100	3/30	48.9	15.9	12.2	10.4	3	12.4
Brooklyn Lake	3 Wyo.	11	16N	78W	10200	4/1	95.9	34.4	32.3	27.3	16	24.7
Fox Park	11 "	21	13N	78W	9200	3/30	39.3	12.0	8.9	4.3	16	8.3
Pole Mtn. #2*	34 "	35	15N	72W	8700	3/28	37.7	11.2	3.1	2.7	16	4.9
Libby Lodge	35 "	29	16N	78W	8700	4/1	52.5	17.4	15.9	13.2	16	9.8
Hairpin Turn	36 "	24	16N	79W	9500	4/1	55.0	18.0	18.4	14.0	16	11.7
Albany	68 "	18	14N	78W	9400	3/30	57.3	18.3	17.8	13.0	3	16.8
		Average for drainage					58.2	19.2	16.2	12.8		13.4
POUDRE RIVER												
Cameron Pass	1 Colo.	2	6N	76W	10300	4/1	87.4	28.8	25.0	18.5	16	21.2
Chambers Lake	2 "	6	7N	75W	9000	3/30	39.4	12.5	11.3	7.0	16	8.0
Big South	3 "	33	8N	75W	8600	3/30	13.1	3.2	3.5	2.5	16	2.7
Deadman Hill	50 "	26	10N	75W	10200	3/29	67.2	23.3	18.2	15.4	15	14.7
Lake Irene*	65 "	8	5N	75W	10600	3/30	82.0	30.8	30.2	20.9	14	21.7
Hour Glass Lake	68 "	18	7N	73W	9500	3/6	28.6	11.2	12.2	13.0	12	8.9
Red Feather	128 "	26	10N	74W	9000	3/29	38.8	13.1	8.8	7.1	3	10.2
Lost Lake	156 "	32	8N	75W	9300	3/30	49.3	16.5	14.4	--	1	14.4
		Average for drainage					54.6	18.6	16.2	11.9		13.2
BIG THOMPSON RIVER												
Lake Irene*	65 "	8	5N	75W	10600	3/30	82.0	30.8	30.2	20.9	14	21.7
Hidden Valley	95 "	23	5N	75W	9550	3/30	55.2	17.0	15.6	11.5	11	12.1
Deer Ridge	115 "	19	5N	73W	9050	3/30	28.9	8.5	8.9	4.2	3	7.3
Longs Peak	148 "	32	4N	73W	10500	4/1	60.6	18.5	--	--		--
		Average for drainage					55.4	18.1	17.2	12.2		13.7
ST. VRAIN RIVER												
Wild Basin	41 "	24	3N	74W	10000	4/1	56.1	24.5	21.6	13.7	16	14.2
Copeland Lake	116 "	21	3N	73W	8600	4/1	30.8	9.8	7.8	3.3	3	6.1
Ward	134 "	1	1N	73W	9500	4/1	35.7	9.0	9.8	4.5	2	7.1
		Average for drainage					43.5	17.1	14.7	8.5		10.4

*On adjacent drainage

PLATTE-ARKANSAS RIVERS SNOW SURVEYS

April 1, 1952

Drainage Basin and Snow Course	Location						Snow Cover Measurements					
	No. and State	Sec.	Twp.	Range	Elev.	Date of Survey	Snow Depth (Inches)	Water Content (Inches)			Past Record	
								1952	1951	1950	Yrs. of Record	Av. Water Content (Inches)
BOULDER CREEK												
E. Port. Moffat T.	5 Colo.	2	2S	74W	9400	3/29	18.4	5.6	5.8	4.9	16	3.7
University Camp	60 "	26	1N	73W	10300	4/2	87.3	34.4	34.0	18.3	14	21.8
Moffat	133 "	2	2S	74W	9400	3/29	39.4	14.0	14.8	8.2	2	11.5
Boulder Falls	162 "	26	1N	73W	10000	4/2	55.5	20.7	--	--		--
		Average for drainage					52.8	20.0	19.9	11.6		12.8
CLEAR CREEK												
Loveland Pass	61 "	27	4S	76W	10600	3/30	70.6	24.0	19.0	14.0	16	13.9
Grizzly Peak*	97 "	2	5S	76W	11250	3/30	76.6	27.0	24.3	19.1	10	18.3
Empire	117 "	21	3S	75W	9650	3.28	42.3	12.0	10.9	7.0	3	7.9
Berthoud Falls	137 "	16	3S	75W	10500	3/28	64.5	20.0	19.5	--	1	
Clear Creek	159 "	27	4S	76W	11200	3/30	75.6	25.0	24.6	--	1	24.6
		Average for drainage					62.2	21.0	18.1	13.4		13.4
SOUTH PLATTE RIVER												
Hoosier Pass	14 Colo.	13	8S	78W	11400	4/1	65.6	19.0	17.6	10.6	16	12.4
Fairplay	15 "	33	9S	77W	10000	4/1	16.8	4.0	0.0	0.0	15	0.8
Jefferson Cr.	83 "	14	7S	76W	10100	3/31	52.4	14.4	12.7	8.1	12	8.7
Geneva Park	118 "	18	6S	74W	9750	3/31	26.5	7.7	6.9	4.1	3	5.1
Antero	120 "	1	13S	77W	9200	3/28	21.6	7.1	1.4	0.8	3	2.5
		Average for drainage					36.6	10.5	9.7	5.3		5.9
					ARKANSAS RIVER							
ARKANSAS RIVER												
Tennessee Pass	19 Colo.	21	8S	80W	10200	3/27	61.9	19.1	13.2	9.2	16	9.2
Twin Lakes T.	21 "	22	11S	82W	10500	3/29	55.0	15.3	14.5	9.6	16	10.4
Marshall Pass	42 "	24	48N	6E	10800	3/30	61.0	21.0	14.2	9.4	16	13.0
Poncha Creek	43 "	19	48N	7E	10500	3/30	56.2	18.7	12.5	7.5	16	11.1
Whiskey Creek	72 "		37.2N	105W	10300	3/28	41.6	12.0	1.0	2.2	15	6.3
La Veta Pass*	74 "	22	28S	70W	9300	4/1	45.9	17.6	5.5	4.2	16	7.9
4-Mile Park	78 "	23	11S	81W	9700	3/27	31.7	7.5	6.3	3.6	16	3.4
Fremont Pass	79 "	2	8S	79W	11400	3/30	73.3	23.0	22.9	16.2	16	16.3
Monarch Pass	92 "	16	49N	6E	10500	3/28	79.6	30.9	21.1	16.0	11	18.0
St. Elmo	119 "	31	15S	80W	10600	3/28	61.7	20.2	13.8	13.1	3	13.5
Timberline	121 "	8	9S	81W	11100	3/27	91.6	29.6	23.2	19.4	3	21.7
Blue Lakes	81 "	30	31S	69W	10000	4/1	39.2	13.2	5.8	8.2	14	6.6
*On adjacent drainage		Average for drainage					54.0	18.1	11.4	8.0		10.2

PLATTE-ARKANSAS RIVERS SNOW SURVEYS
April 1, 1952

Drainage Basin and Snow Course	Location					Snow Cover Measurements						
	No. and State	Sec.	Twp.	Range	Elev.	Date of Survey	Snow Depth (Inches)	Water Content (Inches)			Past Record	
								1952	1951	1950	Yrs. of record	Av. Water Content (Inches)
				COLORADO - BIG THOMPSON PROJECT								
COLORADO RIVER**												
Cameron Pass*	1 Colo.	2	6N	76W	10300	4/1	87.4	28.8	25.0	18.5	16	21.2
Phantom Valley	12 "	7	5N	75W	9300	3/28	58.0	19.0	13.5	9.9	16	10.1
Lulu	59 "	25	6N	76W	10200	3/29	68.5	21.7	21.7	16.9	14	17.1
N. Inlet Grand L.	64 "	26	4N	75W	9000	3/29	50.3	17.9	11.3	7.6	14	9.3
Lake Irene	65 "	8	5N	75W	10600	3/30	82.0	30.8	30.2	20.9	14	21.7
Grand Lake	127 "	36	4N	75W	8600	3/28	52.3	16.1	10.5	6.0	3	9.3
			Average for Drainage				66.4	22.4	18.7	13.3		14.8
WILLOW CREEK												
Park View*	7 Colo.	24	5N	78W	9200	4/3	53.1	16.9	8.7	12.5	16	10.4
Willow Creek	62 "	1	4N	78W	9500	4/3	65.9	20.5	12.6	17.6	14	13.0
Granby	112 "	11	2N	77W	8700	3/28	41.0	12.0	7.6	7.4	3	7.8
			Average for drainage				59.5	18.7	10.6	15.0		11.7
FRAZER RIVER												
Berthoud Pass	15 Colo.	35	2S	75W	9700	3/31	71.3	23.4	18.3	14.7	16	15.9
Arrow	69 "	34	1S	75W	9900	4/1	59.1	18.5	12.5	9.7	14	9.9
Lapland	70 "	16	2S	76W	9500	4/1	62.0	18.8	15.4	14.7	14	11.5
Berthoud Summit-	138 "	10	3S	75W	11300	3/28	76.4	24.0	19.7	--	1	
Frazer View	139 "	34	2S	74W	10600	3/28	58.9	16.0	13.4		1	
			Average for drainage				64.1	20.2	15.4	13.0		12.4
BLUE RIVER												
Hoosier Pass	14 Colo.	13	8S	78W	11400	4/1	65.6	19.0	17.6	10.6	16	12.4
Fremont Pass	79 "	2	8S	79W	11400	3/28	73.3	23.0	22.9	16.2	16	16.3
Shrine Pass	96 "	15	6S	79W	10500	3/28	71.9	24.1	22.4	17.5	10	17.8
Grizzly Peak	97 "	2	5S	76W	11250	3/30	76.6	27.0	24.3	19.0	10	18.3
Frisco	146 "	18	6S	78W	9300	3/28	41.7	12.0	11.4		1	
Snake River	147 "	9	5S	76W	9700	3/30	46.7	14.0	13.3		1	
Summit Ranch	158 "	8	4S	78W	10000	3/30	48.5	15.0	11.7		1	
			Average for drainage				71.8	23.3	21.8	15.8		16.2

*On adjacent drainage
**Above Granby Reservoir

Federal - State - Private

COOPERATIVE SNOW SURVEYS

Furnishes the basic data
necessary for forecasting
water supply for irrigation,
domestic and municipal water
supply, hydro-electric power
generation, navigation,
mining and industry

"WATER IS THE WEST'S GREATEST RESOURCE"